

Amendments to the Claims

1. (Amended) A method for monitoring the operation of data collection on the operation of a packet transmission communication network $[(1)]$ comprising interconnected routers $[(2)]$ each including a routing unit $[(2a)]$ and a control unit $[(2b)]$ supervising the routing unit, the routing unit being arranged for transferring first packets between external ports of said router and for transferring second packets between the external ports of the router and an internal port connected to the control unit, the method comprising the following steps, parallel to the transfer of first and second packets by the routing unit:

- selecting packets corresponding to at least some of the second packets transferred at said internal port of a router $[(2)]$ by means of a determined collection filter; and
- recording a content of the selected packets on a recording medium, said content comprising data on the operation of the network, wherein the selection of packets and an extraction of said content to be recorded of the selected packets are carried out by means of a collection module disposed inside said router and connected to said internal port of said router.

2. (Amended) The method as claimed in Claim 1, wherein a recording unit $[(31)]$ is connected to the communication network $[(1)]$, remote from said router $[(2)]$, and said content of the selected packets is sent to said recording unit.

3. (Amended) The method as claimed in Claim 2, also comprising a formatting of said content of the selected packets prior to the sending of this content to the recording unit $[(31)]$ via the communication network $[(1)]$, the formatting comprising the assignment to the content of address data corresponding to the recording unit $[(31)]$.

4. (Amended) The method as claimed in Claim 3, wherein the content of the selected packets is encrypted prior to the sending of this content to the recording unit $[(31)]$ via the communication network $[(1)]$.

5. (Amended) The method as claimed in ~~any one of the preceding claims~~ Claim 1, wherein ~~[[a]]the collection module $[(30)]$ is arranged inside the router (2), said collection module being connected to said internal port for selecting the second packets and extracting the content to be recorded~~ remotely programmable by means of program codes sent to the collection module via the communication network.

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Amended) The method as claimed in ~~any one of the preceding claims~~ Claim 1, also comprising a step of reading recorded contents of selected packets.

10. (Amended) The method as claimed in Claim ~~[[9]]~~ 5, also comprising a selection step according to a filter for reading recorded contents of packets selected according to the collection filter.

11. (Amended) The method as claimed in ~~any one of the preceding claims~~ Claim 1, wherein said content of a selected packet is recorded with coordinates of said selected packet.

12. (Original) The method as claimed in Claim 11, wherein the recorded coordinates of a selected packet comprise a timestamp of the collection of said selected packet.

13. (Amended) The method as claimed in Claim ~~11 or 12~~, wherein the recorded coordinates of a selected packet comprise an address of the router ~~[[2]]~~ which contains said internal port at which said second packet corresponding to said selected packet is transferred.

14. (Amended) A system for monitoring of data collection on the operation of a packet transmission communication network ~~[[1]]~~ comprising interconnected routers ~~[[2]]~~ each including a routing unit ~~[[2a]]~~ and a control unit ~~[[2b]]~~ supervising the routing unit, the routing unit being arranged for transferring first packets between external ports of said router and for transferring second packets between the external ports of the router and an internal port connected to the control unit, the system comprising:

- a means for selecting packets corresponding to at least some of the second packets transferred at said internal port of a router ~~[[2]]~~ by means of a determined collection filter and for extracting the content to be recorded; and

- a unit for recording ~~[[23, 31]]~~ a content of the selected packets on a recording medium,

wherein said router incorporates a collection module connected to said internal port and comprising the means of selection.

15. (Amended) The system as claimed in Claim 14, wherein the recording unit ~~[[31]]~~ is connected to the communication network ~~[[1]]~~ remotely from said router ~~[[2]]~~.

16. (Original) The system as claimed in Claim 15, also comprising means of formatting said content of the selected packets.

17. (Amended) The system as claimed in Claim 15, wherein the formatting means comprise means of assigning to the content address data corresponding to the recording unit ~~[[31]]~~.

18. (Amended) The system as claimed in ~~any one of claims 15 to 17~~Claim 15, also comprising an encryption module for encrypting said content of the selected packets.

19. (Cancelled)

20. (Amended) The system as claimed in Claim ~~[[19]]~~14, wherein the collection module ~~[[30]]~~ is arranged for receiving programming codes of the collection module via the communication network ~~[[1]]~~.

21. (Cancelled)

22. (Amended) The system as claimed in ~~any one of claims 14 to 21~~Claim 14, also comprising means for reading on the recording medium the recorded content of selected packets.

23. (Original) The system as claimed in Claim 22, also comprising means for selecting recorded contents of packets according to a read filter, when the contents of packets selected according to the collection filter are read on the recording medium.

24. (Amended) The system as claimed in ~~any one of claims 14 to 23~~Claim 14, wherein ~~[[a]]~~the recording unit ~~[[23, 31]]~~ is arranged for recording said content of a selected packet with coordinates of said selected packet.

25. (Original) The system as claimed in Claim 24, wherein the recorded coordinates of a selected packet comprise a timestamp of the collection of said selected packet.

26. (Amended) The system as claimed in Claim 24 ~~or 25~~, wherein the recorded coordinates of a selected packet comprise an address of the router [(2)] which contains said internal port at which said second packet corresponding to said selected packet is transferred.

27. (Amended) The system as claimed in ~~any one of claims 14 to 26~~ Claim 14, also comprising a unit for simulating the operation of the communication network [(1)] by using the recorded contents of selected packets.

28. (Amended) The system as claimed in ~~any one of claims 14 to 26~~ Claim 14, also comprising a unit for constructing and/or updating, based on the recorded contents of selected packets, a table for determining paths intended to be respectively assigned to packets transferred by the routing unit [(2a)] of the router.

29. (Amended) A router [(2)] for a packet transmission communication network [(1)], comprising a routing unit [(2a)] and a control unit [(2b)] supervising the routing unit, the routing unit being arranged for transferring first packets between external ports of the router and for transferring second packets between the external ports of the router and an internal port connected to the control unit, characterized in that it wherein said router also comprises a collection module [(30)] connected to an interface between the routing unit [(2a)] and the control unit [(2b)] for selecting at least some of the second packets and extracting a content to be recorded of the second packets selected in parallel with the transfer of first and second packets by the routing unit.

30. (new) A method for characterizing a part of an operation of a packet transmission communication network comprising interconnected routers each including a routing unit and a control unit supervising the routing unit, the routing unit being arranged for transferring first packets between external ports of said router and for transferring second packets between the external ports of the router and an internal port connected to the control unit, said method using data on the operation of said network collected by carrying out the following steps, parallel to the transfer of first and second packets by the routing unit:

- selecting packets corresponding to at least some of the second packets transferred at said internal port of a router by means of a determined collection filter; and

- recording a content of the selected packets on a recording medium, said content comprising said data on the operation of the network,

wherein the selection of packets and an extraction of said content to be recorded of the selected packets are carried out by means of a collection module disposed inside said router and connected to said internal port of said router.

31. (New) The method as claimed in Claim 30, wherein the collected data are also used to simulate said part of operation of the network.